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(71) Applicant and
(72) Inventor: TENG, Jun, Piao [GB/SG]; Block 108 - Jurong East St. 13, #10-270 Singapore 600108 (SG).

(74) Agent: CURNICK, Ryan, D.; Spruson & Ferguson, GPO Box 3898, Sydney, NSW 2001 (AU).

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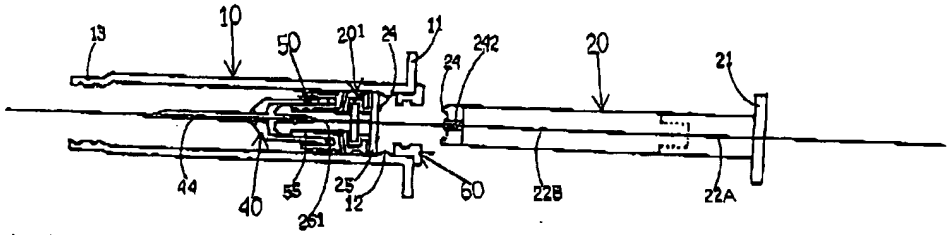
(54) Title: VACUUM AUTO-RETRACTABLE SAFETY SYRINGE



(57) Abstract: A syringe has a hollow body 10, a plunger 20 slidably mounted in the body 10 and a needle 44 mounted at a first end of the body 10. A first sealing member 30, at a first end of the plunger 20 and within the body, slidably seals against the body 10. A second sealing member seals against the body and slidably seals against the plunger shaft 22, the second sealing member 60 being positioned between the first sealing member 30 and a second, opposing end of the body. Pushing the plunger 20 into the body 10 creates a vacuum between the first and second sealing members 30, 60. This can be used to draw liquid into the syringe for injection. Alternatively, the vacuum can be used to retract the needle 44 automatically into the body 10, if the plunger 20 is first pushed in a sufficient amount. A portion of the plunger 20 is easily broken off after use to ensure that the syringe cannot be re-used.

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ABSTRACT

A syringe has a hollow body 10, a plunger 20 slidably mounted in the body 10 and a needle 44 mounted at a first end of the body 10. A first sealing member 30, at a first end of the plunger 20 and within the body, slidably seals against the body 10. A second sealing member seals against the body and slidably seals against the plunger shaft 22, the second sealing member 60 being positioned between the first sealing member 30 and a second, opposing end of the body. Pushing the plunger 20 into the body 10 creates a vacuum between the first and second sealing members 30, 60. This can be used to draw liquid into the syringe for injection. Alternatively, the vacuum can be used to retract the needle 44 automatically into the body 10, if the plunger 20 is first pushed in a sufficient amount. A portion of the plunger 20 is easily broken off after use to ensure that the syringe cannot be re-used.